The Investigation of the Doppler-Effect of the a- Value of ^{235}U and ^{239}Pu for Different Temperatures.

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The time-of-flight spectra for γ-ray multiplicities from 1 to 15 were measured on the 121 m flight path of IBR-30 pulsed neutron booster using the 16-section liquid scintillation detector for a thin metallic ^{235}U radiator-sample (0.25 mm) and ^{239}Pu (0.3 mm) at the presence of the ^{235}U and ^{239}Pu filter-samples with a thickness of 0.5 mm at two temperatures (100 K and 293 K). Multiplicity spectra, Doppler-coefficients of the capture, fission cross-sections and of the alpha values were determined from the time-of-flight spectra for above-mentioned temperatures.

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